

DEPARTMENT OF THE INTERIOR**Fish and Wildlife Service****50 CFR Part 17****Endangered and Threatened Wildlife and Plants; Proposed Threatened Status for *Calyptronoma rivalis***

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: The Service proposes to determine *Calyptronoma rivalis* (palma de manaca) to be a threatened species pursuant to the Endangered Species Act of 1973, as amended (Act). Critical habitat is not proposed. *Calyptronoma rivalis* is endemic to the island of Puerto Rico. The two remaining natural populations are restricted to the subtropical moist and subtropical wet limestone forests of the northwestern part of the island. The species is threatened by erosion due to flash flooding, agricultural expansion, and rural development. Flash flooding has increased due to extensive deforestation in surrounding areas. This proposal, if made final, would implement the Federal protection and recovery provisions afforded by the Act for *Calyptronoma rivalis*. The Service seeks data and comments from the public on this proposal.

DATES: Comments from all interested parties must be received by April 10, 1989. Public hearing requests must be received by March 24, 1989.

ADDRESSES: Comments and materials concerning this proposal should be sent to the Field Supervisor, Caribbean Field Office, U.S. Fish and Wildlife Service, P.O. Box 491, Boqueron, Puerto Rico 00622. Comments and materials received will be available for public inspection, by appointment, at this office during normal business hours, and at the Service's Southeast Regional Office, Suite 1282, 75 Spring Street, SW., Atlanta, Georgia 30303.

FOR FURTHER INFORMATION CONTACT: Ms. Susan Silander at the Caribbean Field Office address (809/851-7297) or Mr. Tom Turnipseed at the Atlanta Regional Office address (404/331-3583 or FTS 242-3583).

SUPPLEMENTARY INFORMATION:**Background**

Calyptronoma rivalis was first collected in 1901 by L.M. Underwood and R.F. Grigg in San Sebastian of western Puerto Rico. In 1923, N. Britton and P. Wilson referred to this species as *Calyptrogyne occidentalis*; however,

L.H. Bailey, in his 1938 monograph on the group, provided sufficient evidence to place the species in a separate genus *Calyptronoma*. Authorities on the palm family accept this opinion and view this palm as an endemic species. Until recently, the species was known only from the type locality, where 44 individuals are known to occur. An additional population was discovered along the Camuy River of northwestern Puerto Rico in 1981 (Vivaldi and Woodbury 1981). About 200 individuals are presently known from this population. In addition, seeds have been collected from mature specimens and a small number of seedlings cultivated from these have been introduced into the Puerto Rico Department of Natural Resource's Rio Abajo Commonwealth Forest.

Calyptronoma rivalis is an arborescent palm which may reach 30 to 40 feet (9 to 13 meters) in height and 6 to 10 inches (15 to 25 centimeters) in diameter. The spineless, pinnate leaves may reach up to 12 feet (4 meters) and have petioles and sheaths up to 2 feet long (.7 meter). The inflorescence is a drooping panicle about 3 feet (1 meter) long. The flowers are in triads of two males and one female and are borne on sunken pits. Fruits are only 0.24 inch (6 millimeters) in diameter and are subglobose and reddish when ripe. All fruits mature at approximately the same time and fall with the persistent flower parts still attached to the base.

Only two natural populations and one small, introduced population are known: San Sebastian, Camuy, and the Rio Abajo Commonwealth Forest. All occur in the semievergreen seasonal forests of the karst region of northwestern Puerto Rico at elevations of 100 to 150 meters. All three populations are found in level or nearly level areas along stream banks. Deforestation in the surrounding areas has increased the threat of flash flooding and therefore the establishment of seedlings may be difficult. The construction of a road in the Camuy area resulted in the destruction of a large portion of that population.

Calyptronoma rivalis was recommended for Federal listing by the Smithsonian Institution (Ayensu and DeFilippis 1978). The species was included among the plants being considered as a candidate endangered or threatened species by the Fish and Wildlife Service, as published in the Federal Register (45 FR 62489) dated December 15, 1980; the November 28, 1983, update (48 FR 53649) of the 1980 notice; and the September 27, 1985, revised notice (50 FR 39526). The species was designated Category 1 (species for

which the Service has substantial information supporting the appropriateness of proposing to list them as endangered or threatened) in each of the three notices.

In a notice published in the Federal Register on February 15, 1983 (48 FR 6752), the Service reported the earlier acceptance of the new taxa in the Smithsonian's 1978 book as under petition within the context of section 4(b)(3)(A) of the Act, as amended in 1982. The Service made subsequent petition findings in 1984, 1985, 1986, 1987, and 1988 that listing *Calyptronoma rivalis* was warranted but precluded by other pending listing actions of a higher priority, and that additional data on vulnerability and threats were still being gathered. This proposed rule constitutes the final required petition finding in accordance with section 4(b)(3)(B)(ii) of the Act.

Summary of Factors Affecting the Species

Section 4(a)(1) of the Endangered Species Act (16 U.S.C. 1531 *et seq.*) and regulations promulgated to implement the listing provisions of the Act (50 CFR Part 242) set forth the procedures for adding species to the Federal lists. A species may be determined to be an endangered or threatened species due to one or more of the five factors described in section 4(a)(1). These factors and their application to *Calyptronoma rivalis* (O.F. Cook) L.H. Bailey (palma de manaca) are as follows:

A. *The present or threatened destruction, modification, or curtailment of its habitat or range.* Modification of the original semievergreen seasonal forest and conversion to agricultural and pasture land may have eliminated populations and reduced available habitat. Direct destruction of plants through deforestation and flash flooding and the continued modification of habitat appear to be the most serious threats to *Calyptronoma rivalis*. Road construction eliminated part of the Camuy River population. Fires in surrounding sugar cane fields have burned some individuals. Flash flooding, increased by deforestation in surrounding areas, may cause erosion of stream banks, may reduce germination by washing away the seeds, and may result in poor establishment and survival of seedlings.

B. *Overutilization for commercial, recreational, scientific, or educational purposes.* Taking for these purposes has not been a documented factor, but it could become a problem if information on the palm were to be widely publicized.

C. *Disease or predation.* Disease and predation have not been documented as factors in the decline of this species.

D. *The inadequacy of existing regulatory mechanisms.* The Commonwealth of Puerto Rico has adopted a regulation that recognizes and provides protection for certain Commonwealth listed species. Although the Puerto Rico Department of Natural Resources issued an internal directive in 1979 to try to protect this endemic palm, *Calyptronoma rivalis* is not yet on the Commonwealth list. Federal listing would provide interim protection and, if the species is ultimately placed on the Commonwealth list, enhance its protection and possibilities for funding needed research.

E. *Other natural or manmade factors affecting its continued existence.* All 3 populations, totaling perhaps 250 individuals, are known to inhabit areas that are susceptible to flash flooding.

Although germination may occur readily, establishment of seedlings is often impossible due to the frequency of such occurrences. Cattle have been observed feeding on and trampling young seedlings.

The Service has carefully assessed the best scientific and commercial information available regarding the past, present, and future threats faced by this species in determining to propose this rule. Based on this evaluation, the preferred action is to list *Calyptronoma rivalis* as threatened. Since the species appears to produce large quantities of viable seed, improvement in the species' status may only require mechanisms to protect it from the effects of deforestation in surrounding areas. In addition, introduction efforts in the Rio Abajo Forest appear to have been initially successful, although it is not yet known if the palms will reproduce and colonize the area naturally. Therefore, threatened rather than endangered status seems an accurate assessment of the species' condition. The reasons for not proposing critical habitat for this species are discussed below.

Critical Habitat

Section 4(a)(3) of the Act, as amended, requires that to the maximum extent prudent and determinable, the Secretary designate any habitat of a species that is considered to be critical habitat at the time the species is determined to be endangered or threatened. The Service finds that designation of critical habitat is not prudent for this species at this time. The number of individuals of *Calyptronoma rivalis* is sufficiently small that vandalism could seriously affect the survival of the species. Such

an activity is difficult to enforce against and only regulated by the Act with respect to plants in cases of (1) removal and reductions to possession of endangered plants from lands under Federal jurisdiction or malicious damage or destruction on such lands; and (2) removal, cutting, digging up, or damaging or destroying in knowing violation of any State laws or regulation, including State criminal trespass law. Publication of critical habitat descriptions and maps in the **Federal Register** would increase the likelihood of such activities. The Service believes that Federal involvement in the areas where this plant occurs can be identified without the designation of critical habitat. All involved parties and principal landowners have been notified of the location and importance of protecting this species' habitat. Protection of this species' habitat will also be addressed through the recovery process and through the section 7 jeopardy standard. Therefore, it would not be prudent to determine critical habitat for *Calyptronoma rivalis* at this time.

Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened under the Endangered Species Act include recognition, recovery actions, requirements for Federal protection, and prohibitions against certain practices. Recognition through listing encourages and results in conservation actions by Federal, Commonwealth and private agencies, groups, and individuals. The Endangered Species Act provides for possible land acquisition and cooperation with the Commonwealth, and requires that recovery actions be carried out for all listed species. Such actions are initiated by the Service following listing. The protection required of Federal agencies and the prohibitions against taking are discussed, in part, below.

Section 7(a) of the Act, as amended, requires Federal agencies to evaluate their actions with respect to any species that is proposed or listed as endangered or threatened and with respect to its critical habitat, if any is being designated. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR Part 402. Section 7(a)(4) requires Federal agencies to confer informally with the Service on any action that is likely to jeopardize the continued existence of a proposed species or result in destruction or adverse modification of proposed critical habitat. If a species is subsequently listed, section 7(a)(2)

requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of such a species or to destroy or adversely modify its critical habitat. If a Federal action may adversely affect a listed species or its critical habitat, the responsible Federal agency must enter into formal consultation with the Service. No critical habitat is being proposed for *Calyptronoma rivalis*, as discussed above. Federal involvement is not expected where the species is known to occur.

The Act and its implementing regulations found at 50 CFR 17.71 and 17.72 set forth a series of general trade prohibitions and exceptions that apply to all threatened plants. All trade prohibitions of section 9(a)(2) of the Act, implemented by 50 CFR 17.71, would apply. These prohibitions, in part, make it illegal for any person subject to the jurisdiction of the United States to import or export any threatened plant, transport it in interstate or foreign commerce in the course of a commercial activity, sell or offer it for sale in interstate or foreign commerce, or to remove and reduce the species to possession from areas under Federal jurisdiction. In addition for listed plants, the 1988 amendments to the Act (Pub. L. 100-478) prohibit (1) their malicious damage or destruction on Federal lands, and (2) their removal, cutting, digging up, or damaging or destroying in knowing violation of any State law or regulation, including State criminal trespass law. Seeds from cultivated specimens of threatened plant species are exempt from these prohibitions provided that a statement of "cultivated origin" appears on their containers. Certain exceptions can apply to agents of the Service and Commonwealth conservation agencies.

The Act and 50 CFR 17.72 also provide for the issuance of permits to carry out otherwise prohibited activities involving threatened species under certain circumstances. It is anticipated that few trade permits for *Calyptronoma rivalis* will ever be sought or issued since the species is not common in cultivation and is uncommon in the wild. Requests for copies of the regulations on plants and inquiries regarding them may be addressed to the Office of Management Authority, U.S. Fish and Wildlife Service, P.O. Box 27329, Washington, DC 20038-7329 (202/343-4955).

Public Comments Solicited

The Service intends that any final action resulting from this proposal will be as accurate and as effective as possible. Therefore, any comments or

suggestions from the public, other concerned governmental agencies, the scientific community, industry, or any other interested party concerning any aspect of this proposed rule are hereby solicited. Comments are particularly sought concerning:

(1) Biological, commercial trade, or other relevant data concerning any threat (or lack thereof) to *Calyptronoma rivalis*;

(2) The location of any additional populations of *Calyptronoma rivalis*, and the reasons why any habitat should or should not be determined to be critical habitat as provided by Section 4 of the Act;

(3) additional information concerning the range and distribution of this species; and

(4) current or planned activities in the subject areas and their possible impacts on *Calyptronoma rivalis*.

Final promulgation of the regulation on *Calyptronoma rivalis* will take into consideration the comments and any additional information received by the Service, and such communications may lead to adoption of a final regulation that differs from this proposal.

The Endangered Species Act provides for a public hearing on this proposal, if requested. Requests must be filed within 45 days of the date of this proposal. Such requests must be made in writing and addressed to the Field Supervisor, Caribbean Field Office, U.S. Fish and Wildlife Service, P.O. Box 491, Boqueron, Puerto Rico 00622.

National Environmental Policy Act

The Fish and Wildlife Service has determined that an Environmental Assessment, as defined under the authority of the National Environmental Policy Act of 1969, need not be prepared in connection with regulations adopted pursuant to section 4(a) of the Endangered Species Act of 1973, as amended. A notice outlining the Service's reasons for this determination was published in the **Federal Register** on October 25, 1983 (48 FR 49244).

References Cited

- Ayensu, E. S., and R. A. DeFilipps. 1978. Endangered and threatened plants of the United States. Smithsonian Institution and World Wildlife Fund, Washington, DC xv + 403 pp.
- Bailey, L. H. 1938. Certain palms of the Greater Antilles. I. 7. *Calyptronoma rivalis*. Gentes Herbarium 4:153-177.
- Vivaldi, J. L., and R. O. Woodbury. 1981. Status report on *Calyptronoma rivalis* (O. F. Cook) L. H. Bailey. Unpublished status report submitted to the Fish and Wildlife Service, Atlanta, Georgia. 35 pp.

Author

The primary author of this proposed rule is Ms. Susan Silander, Caribbean Field Office, U.S. Fish and Wildlife Service, P.O. Box 491, Boqueron, Puerto Rico 00622 (809/851-7297).

List of Subjects in 50 CFR Part 17

Endangered and threatened wildlife, Fish, Marine mammals, Plants (agriculture).

Proposed Regulation Promulgation

Accordingly, it is hereby proposed to amend Part 17, Subchapter B of Chapter I, Title 50 of the Code of Federal Regulations, as set forth below:

PART 17—[AMENDED]

1. The authority citation for Part 17 continues to read as follows:

Authority: Pub. L. 93-205, 87 Stat. 884; Pub. L. 94-359, 90 Stat. 911; Pub. L. 95-632, 92 Stat. 3751; Pub. L. 96-159, 93 Stat. 1225; Pub. L. 96-

304, 96 Stat. 1411; Pub. L. 100-478, 102 Stat. 2306; Pub. L. 100-653, 102 Stat. 3825 (16 U.S.C. 1531 *et seq.*); Pub. L. 99-625, 100 Stat. 3500, unless otherwise noted.

2. It is proposed to amend § 17.12(h) by adding the following family, and Arecaceae entries, in alphabetical order to the List of Endangered and Threatened Plants:

§ 17.12 Endangered and threatened plants.

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Species		Historic range	Sta- tus	When listed	Critical habitat	Special rules
Scientific name	Common name					
Arecaceae—Palm family:						
<i>Calyptronoma rivalis</i>	Palma de manaca	U.S.A. (PR)	T		NA	NA

Dated: December 22, 1988.

Becky Norton Dunlop,

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